

We claim:

Sub A1
1. An intelligent telephone number dialer for dialing a telephone number in the form of a first plurality of digits that is greater than a second plurality of digits entered by a user as being representative of a prefix portion and a suffix portion of that telephone number, the telephone number dialer comprising:

a keypad for allowing the user to enter telephone number digits;

a microprocessor coupled to a telephone line and to the keypad;

a non-volatile memory coupled to the microprocessor for storing a database of telephone number area codes for a selected geographic area and associated telephone number prefixes valid in each of the stored telephone number area codes;

the microprocessor being responsive to entry by the user of said second plurality of digits for searching said database to locate the one of said stored prefixes represented by ones of said second plurality of digits and the associated one of said stored area codes in which said located stored prefix is valid, said microprocessor thereupon being operative for initiating dialing of said first plurality of digits in the form of said located area code, followed by said second plurality of digits previously entered by the user.

2. An intelligent telephone number dialer as in claim 1, wherein:

said first plurality of digits comprises at least ten digits; and

said second plurality of digits comprises seven digits, the first three of which comprise said prefix portion and the remaining four of which comprise said suffix portion.

3. An intelligent telephone number dialer for dialing a telephone number in the form of a first plurality of digits that is greater than a second plurality of digits entered by

a user as being representative of a prefix portion and a suffix portion of that telephone number, the telephone number dialer comprising:

a keypad for allowing the user to enter telephone number digits;

a microprocessor coupled to a telephone line and to the keypad;

a non-volatile memory coupled to the microprocessor for storing a database of telephone number area codes for a selected geographic area and associated telephone number prefixes valid in each of the stored telephone number area codes;

the microprocessor being responsive to entry by the user of said second plurality of digits for searching said database to locate the one of said stored prefixes represented by ones of said second plurality of digits and the associated one or more of said stored area codes in which said located stored prefix is valid, said microprocessor thereupon being operative, in the event said located stored prefix is valid in a plurality of area codes, for enabling selection of one of said plurality of located area codes and for then initiating dialing of said selected located area code, followed by said second plurality of digits previously entered by the user.

4. An intelligent telephone number dialer as in claim 3, wherein:

said first plurality of digits comprises at least ten digits; and

said second plurality of digits comprises seven digits, the first three of which comprise said prefix portion and the remaining four of which comprise said suffix portion.

5. An intelligent telephone number dialer as in claim 3, wherein said microprocessor is operative for automatically selecting said one of said plurality of located area codes.

6. An intelligent telephone number dialer as in claim 5, wherein said microprocessor automatically selects said one of said plurality of located area codes based upon said suffix portion of said second plurality of digits previously entered by the user.

7. An intelligent telephone number dialer as in claim 3, further comprising a display for visually display information to the user; said microprocessor being further operative, following searching of said database, for initiating a display of each one of said plurality of located area codes, together with one or more associated selection digits; said microprocessor thereafter being responsive to entry by the user of one of said one or more selection digits for selecting the associated one of said plurality of located area codes.

8. An intelligent telephone number dialer as in claim 3, further comprising a voice synthesizer for providing voice messages to the user; said microprocessor being further operative, following searching of said database, for initiating a voice message containing each one of said plurality of located area codes, together with an associated one or more selection digits; said microprocessor thereafter being responsive to entry by the user of one of said one or more selection digits for selecting the associated one of said plurality of located area codes.

9. A method for dialing a telephone number in the form of a first plurality of digits that is greater than a second plurality of digits representative of a prefix portion and a suffix portion of that telephone number, the method comprising:

storing a database of telephone number area codes for a selected geographic area and associated telephone number prefixes valid in each of the stored telephone number area codes,

entering said second plurality of digits;

searching said database to locate the one of said stored prefixes represented by ones of said second plurality of digits and the associated one of said stored area codes in which said located stored prefix is valid; and

initiating dialing of said located area code, followed by said second plurality of digits previously entered.

10. A method as in claim 9, wherein:

said first plurality of digits comprises at least ten digits; and

said second plurality of digits comprises seven digits, the first three of which comprise said prefix portion and the remaining four of which comprise said suffix portion.

11. A method for dialing a telephone number in the form of a first plurality of digits that is greater than a second plurality of digits representative of a prefix portion and a suffix portion of that telephone number, the method comprising:

storing a database of telephone number area codes for a selected geographic area and associated telephone number prefixes valid in each of the stored telephone number area codes;

entering said second plurality of digits;

searching said database to locate the one of said stored prefixes represented by ones of said second plurality of digits and an associated plurality of said stored area codes in which said located stored prefix is valid;

enabling selection of one of said plurality of located area codes; and

initiating dialing of said selected located area code, followed by said second plurality of digits previously entered.

12. A method as in claim 11, wherein:

said first plurality of digits comprises at least ten digits; and

said second plurality of digits comprises seven digits, the first three of which comprise said prefix portion and the remaining four of which comprise said suffix portion.

13. A method as in claim 11, wherein said one of said plurality of located area codes is selected on the basis of said suffix portion of said second plurality of digits previously entered.

14. A method as in claim 11, further comprising the steps of:

displaying each one of said plurality of located area codes, together with an associated one or more selection digits; and

entering one of said one or more associated selection digits to thereby select the associated one of said plurality of located area codes.

15. A method as in claim 11, further comprising the steps of:

providing a voice message containing each one of said plurality of located area codes, together with an associated one or more selection digits; and

entering one of said one or more associated selection digits to thereby select the associated one of said plurality of located area codes.

16. An intelligent telephone number dialer as in claim 1, wherein:

said microprocessor comprises a computer located in a telephone utility's central switching office; and

said non-volatile memory is located in said telephone utility's central switching office.

17. An intelligent telephone number dialer as in claim 1, wherein:

said microprocessor and said memory comprise a computer system located in a telephone utility's switching center.